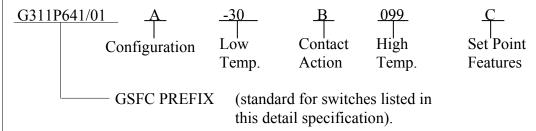
]	REV	ISIC	ONS									
SYM	BOL		DESCRIPTION										DA	TE		APPROVAL				
A RN A064 Incorporated B Incorporated Elmwood Sensors "J" Configuration of 3200 Thermostat; entire document reformatted. C RN A123 incorporated 11.								27/9 23/9 1/17/ 1/06/ 2/19/	4 97 01											
SHEET REVISION STATUS																				
SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REV	D	D	D	D	D	D	D	D	D											
SH REV	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
ORIGINATOR: T. R. Duffy/Unisys									DATE 12/14/93			FSC:								
	APPROVED: S. Archer-Davies/Unisys								12/14/93											
CODE 311 APPROVAL: P. J. Jones/GSFC									(S	Switch, Thermostatic, (Bimetallic), Subminiature Sealed, Single Pole, Single Throw (SPST), Detail										
CODE 311 SUPERVISORY APPROVAL: G. Kramer/GSFC Specification for																				
ADDITIONAL APPROVAL:												S-311-641/01								
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION GODDARD SPACE FLIGHT CENTER GREENBELT, MARYLAND 20771 CAGE CODE: 25306 Page 1 of 8																				

GSFC DETAIL SPECIFICATION

SWITCHES, THERMOSTATIC, (BIMETALLIC), SUBMINIATURE, HEREMETICALLY SEALED, SINGLE POLE, SINGLE THROW (SPST)

The requirements for procuring the thermostatic switches described herein shall consist of this specification and the current revision of GSFC S-311-641.

PART NUMBER:



Configuration: See figure 1.

NOTE: All temperatures are in °F.

Low Temperature: The low temperature operating point (°F) shall be designated by 3 digits.

For negative temperatures, the first digit shall be a minus (-).

Contact Action: Operating characteristics of the part.

- Open on increasing temperature. Α
- В Open on decreasing temperature.
- C Close on increasing temperature.
- D Close on decreasing temperature.

The high temperature operating point (°F) shall be designated by 3 digits. High Temperature:

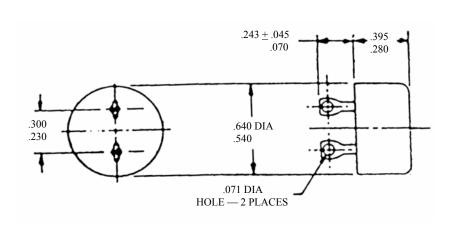
For negative temperatures, the first digit shall be a minus (-).

Set Point Features: Special features for set points.

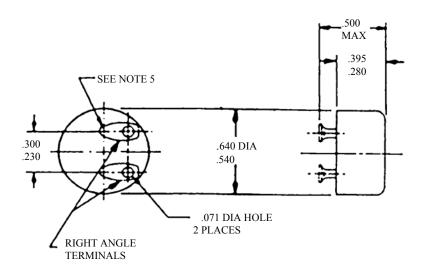
- Set points are min-max. A
- В Opening set point is min or max.

Closing set point is standard tolerance.

- \mathbf{C} Closing set point is min or max.
 - Opening set point is standard tolerance.
- D Opening set point is $\pm 5^{\circ}$ F with 7° F to 18° F differential. Closing set point is min or max possible.
- Е Closing set point is ±5°F with 7°F to 18°F differential. Opening set point is min or max possible.
- F Opening set point is standard tolerance. Closing set point is standard tolerance.

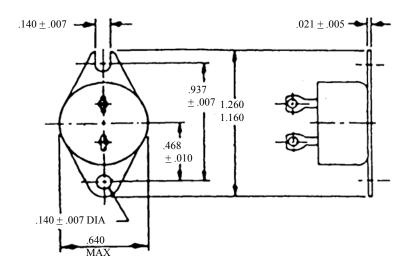


CONFIGURATION A

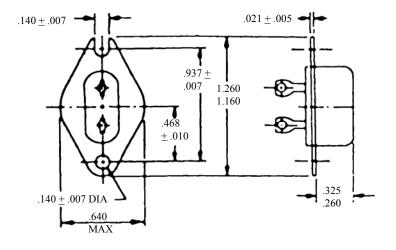


CONFIGURATION B

Figure 1. <u>Dimensions</u>.

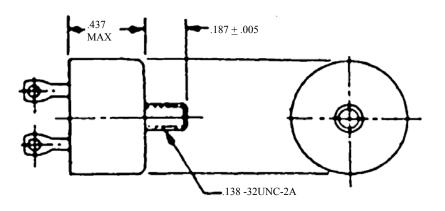


CONFIGURATION C

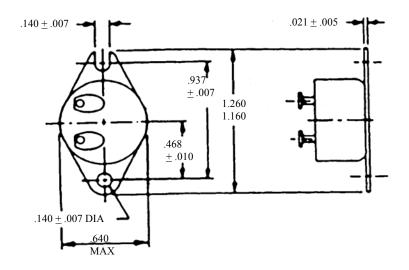


CONFIGURATION D

Figure 1. <u>Dimensions.</u> (continued)

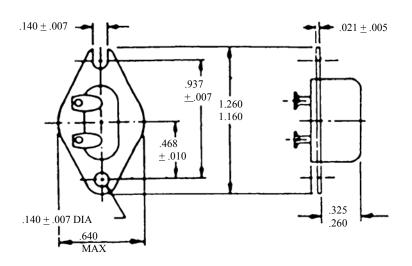


CONFIGURATION E

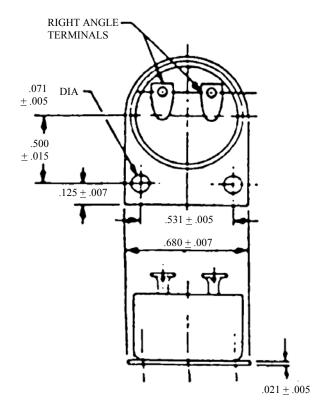


CONFIGURATION F

Figure 1. <u>Dimensions</u>. (continued)

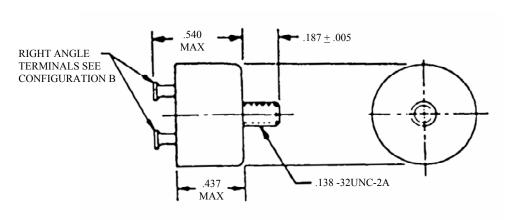


CONFIGURATION G

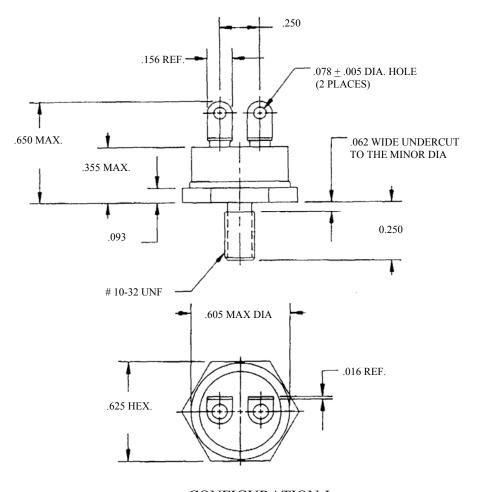


CONFIGURATION H

Figure 1. <u>Dimensions.</u> (continued)



CONFIGURATION I



CONFIGURATION J

Figure 1. <u>Dimensions.</u> (continued)

NOTES:

- 1. Dimensions are in inches.
- 2. Unless otherwise specified, tolerance is + .015.
- 3. Exact shape of switch and terminals are optional provided dimensions specified are not exceeded.
- 4. Configuration C, D and E use the basic switches of configuration A. Configuration F, G and H use the basic switches of configuration B.
- 5. This dimension not to exceed extended envelope of the switch.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Operating temperature range: -65°F to 500°F.

Tolerance: Standard tolerance is $\pm 6^{\circ}$ F.

Mounting: See figure 1.

Weight: Not to exceed .025 pound.

Contact ratings: See table I

Contact resistance: 25 milliohms maximum.

Classification: Type I, Class 4, except 80,000 feet altitude, per MIL-S-24236.

		Endurance				
Load	Sea I	Level	80,000 feet	(cycles)		
	28 V	115 V, 60 Hz	28 V			
	amperes	amperes	amperes			
Resistive	5.0	2.0	5.0	100,000		
Inductive	2.5	1.0	2.5	100,000		
Lamp	1.0	0.5	1.0	100,000		

TESTING:

Qualification and testing per GSFC S-311-641 with the following details and exceptions:

- a. Creepage testing shall be performed in accordance with MIL-PRF-24236, para. 4.6.4 for three (3) consecutive cycles.
- b. Switches shall be heated or cooled as required to cause thermal actuation. The rate of temperature change of the switch shall be the minimum practical to provide reliable creepage detection.
- c. Tested units shall meet the requirements in MIL-PRF-24236, para. 3.9, except contact transfer time shall not exceed two (2) milliseconds.

Custodian:	QPLD Administrator Parts, Packaging & Assembly Technologies Office, Code 562 Goddard Space Flight Center Greenbelt, MD 20771